Pearson New International Edition

An Introduction to Children with Language Disorders

Vicki A. Reed

Fourth Edition

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TABLE 1 | (*Continued*)

Researchers	Age(s) of First Identification of Language Impairment	Age(s) at Follow-Up Assessment	*Language Ability*
Stothard et al. (1998)	3;9–4;2 Retested at 5;6 years and groups formed, among them: —"Resolved" language delay at 5;6 years —"Persistent" language impairment at 5;6 years	15–16-year-olds	—Persistent LI group: all measures below –1 SD and several approaching –2 SD level —Significant decrease in vocabulary between 8 and 15 years of age —"Resolved" language delay group: most measures at lower end of normal range; significantly lower than control group (normal language) on four of eight measures
Clegg et al. (2005)	Mean age: 9;11	Mean age: 36;2	—11;9 age equivalent of receptive vocabulary —11;1 age equivalent of expressive vocabulary —No change in receptive and expressive language past early 20s —Significantly lower language than unaffected siblings —Sentence repetition lower than unaffected siblings —Nonword repetition lower than unaffected siblings —Significantly impaired theory of mind**

Parents of adolescents with SLI have expressed a number of concerns about outcomes for their teenagers. Among the parental concerns, which have shown different patterns from those of parents with adolescents without language impairment, are the following (Conti-Ramsden & Botting, 2004; Conti-Ramsden, Botting, & Durkin, 2008; Pratt, Botting, & Conti-Ramsden, 2006):

- Relatively negative expectations for the adolescents' future and life as an adult
- Limited employment options and lack of independence

Characteristics at Follow-Up		
Reading and Academic Ability	*Social/Emotional/Behavioral Characteristics*	*Other*
—Persistent LI group: 95% scored below 12-year level for reading and spelling; performances at –2 SD level; 50% received no special academic assistance, 30% tutoring, and 20% placed in special classes/ schools —"Resolved" language-delay group: 52% scored below 12-year level for reading and spelling; performances mostly at lower end of normal range		—For persistent LI group, a decline in nonverbal IQ between "normal" nonverbal IQ in preschool years to ~50% with scores below –1 SD
—Significant and severe literacy deficits —9-year age equivalency for reading and spelling compared to 14–16-year age equivalency for unaffected peers —94% of SLIs did not pass secondary school examinations at expected chronological age of 16 years or at any time thereafter; did not attain a certificate of secondary education (approximately high school diploma) —About 50% subsequently attended adult education course or technical/apprenticeship; ~50% no training/education beyond age 16 years	—About 50% had limited range of friendships —30% still bullied or teased —25% living with partner at follow-up; ~30% had lived as married for ±1 month —Higher scores on tests of psychiatric morbidity, especially items for social anxiety, no close friends, odd speech	—Performance IQ within normal limits; similar levels to unaffected siblings —60% employed at time of follow up but only 17% had been in continuous employment since leaving secondary school —Two-thirds had periods of unemployment of ±2 years; 18% never had any paid employment —41% had been dismissed from one or more jobs —40% living independently; others reliant on parents for support

*"Special academic assistance" consisted of special education services, tutoring, remedial instruction, and/or special classroom/special school placement.

** Theory of mind is a person's ability to attribute mental states to themselves and others, allowing people to predict, judge, and explain others' behavior and understand social interactions.

- Difficulties with social relationships and socialization
- Conduct problems
- Narrowed educational pursuits
- Limited community resources to support the adolescents in their adulthood
- The adolescents' potential vulnerability to victimization

As we see above and will see in our discussion below, these parental concerns may be justified.

Personal and Societal Costs of Adolescent Language Impairment

While a language impairment in adolescence potentially limits opportunities for an individual's personal, vocational, and economic self-realization, the problem is not just the individual's. It is also society's problem. Undereducation and underemployment are common outcomes of a language impairment (Clegg et al., 2005; Johnson et al., 2010; Law et al., 2009; Whitehouse, Watt, et al., 2009). As a result, potentially valuable human resources and contributions are wasted. In some instances, rather than contributing to society as a self-sufficient adult when the underlying potential to do so may have existed, an individual with residual language problems takes from society.

Adolescents with language impairment are at risk for leaving school before earning their full high school diploma (or equivalent), that is, dropping out (Clegg et al., 2005; Conti-Ramsden, Durkin, Simkin, & Knox, 2009). Table 2 shows data from the U.S. Department of Education (2001) indicating the percentage of adolescents with speech or language impairment in the 1997–1998 and 1998–1999 school years who left high school with a diploma or a certificate or either dropped out or otherwise left without receiving a formal credential. Because we know that a large number of adolescents labeled as having a specific learning disability have language impairment, data for this group of adolescents with a disability are also presented. As is evident, about 80 percent of the adolescents with speech or language impairment and about 62 percent of those with specific learning disabilities either dropped out or otherwise left high school without receiving a formal credential. (It is interesting to note that a higher percentage of students with speech and language impairment left school without a formal credential than students with learning disabilities.) In Western societies, these individuals are likely to have difficulty finding gainful employment, if any employment at all. Students who are at risk for dropping out or who have dropped out are more likely to be the individuals associated with juvenile delinquency, drug and alcohol abuse, and even youth suicide. However, more recent data trends for the 2004–2005 school years for leaving high school are considerably different from those of 1997–1999, as we can see in Table 3. The 2004–2005 data show far fewer differences among percentage of students with speech–language impairment and specific learning

TABLE 2 | Different Types of Credentials with Which Adolescents with Speech–Language Impairment and Specific Learning Disabilities Left High School in the 1997–1998 and 1998–1999 School Years

Type of Credential on Leaving High School	Types of Disability	
	Speech–Language Impairments	*Specific Learning Disabilities*
Left with a diploma		
1997–1998	17.5%	33.1%
1998–1999	19.7%	33.5%
Left with a certificate		
1997–1998	2.2%	4.5%
1998–1999	2.3%	4.6%
Left with no credential		
1997–1998	80.3%	62.4%
1998–1999	78%	61.9%

Source: U.S. Department of Education (2001).

TABLE 3 | Different Types of Credentials with Which Adolescents with Speech–Language Impairments and Specific Learning Disabilities Left School, Compared to Total Students in Special Education, in 2004–2005 School Year, Excluding Students Moved into General (Regular) Education

Types of Credential on Leaving High School	Types of Disability		
	Speech-Language Impairments	*Specific Learning Disabilities*	*Total Students in Special Education*
Left with a diploma	67%	61%	57%
Left with a certificate	12%	14%	17%
Left with no credential	21%	25%	26%

Source: U.S. Department of Education (2006).

disabilities leaving high school with different qualifications than the 1997–1999 data. The 2004–2005 percentages are also not hugely different from those for the total percentages in special education. The reasons for the differences between the 1997–1999 and the 2004–2005 data are not known, so any explanation is speculative. One speculation is that services for students improved from the late 1990s so that all special education students fared better in terms of remaining in school and receiving high school credentials. Another speculation is that the two data sets were derived from different ways of counting and classifying students, possibly using different criteria for determining eligibility for being awarded special education classification and for receiving special education services. A further speculation is that the requirements for determining who qualified for different credentials and how they demonstrated meeting the qualifications changed. A fourth, but not necessarily the last, reason reflects a combination of several reasons, including different eligibility criteria that removed a substantial number of students from special education services and moved them into regular education, changes in the ways local education agencies reported on their students so that those who were moved into regular education and did not remain in special education were excluded from special education school leaving data, improved services for students in special education so that more remained in school and received some form of credential, and/or changes in requirements for leaving high school with different credentials. It is interesting to note that for the 2004–2005 school year, between 40 and 45 percent of students 14 to 21 years of age who had been classified as speech and/or language impaired for special education were moved into regular/general education, while 10 percent of the same-age students classified as specific learning disabled were moved into regular/general education and the percentage for the total number of students 14 to 21 years of age moved from special education to regular/general education was also 10 percent. Figure 1 illustrates the percentage of students between 14 and 21 years of age who moved from special education to general education (regular education) in 2004–2005. The reasons for so many adolescents with speech and/or language impairments being reclassified from special education to regular/general education are worth investigation to determine if the teenagers legitimately no longer need special education support services or if other motivations led to their being moved into regular/general education. Even considering the 2004–2005 data, a substantial percentage of adolescents with speech and/or language impairments drop out of high school, that is, leave with no credential.

In adolescence, juvenile delinquency, youth suicide, and drug and alcohol abuse have been linked to deficits in basic skills, including speaking and listening abilities.

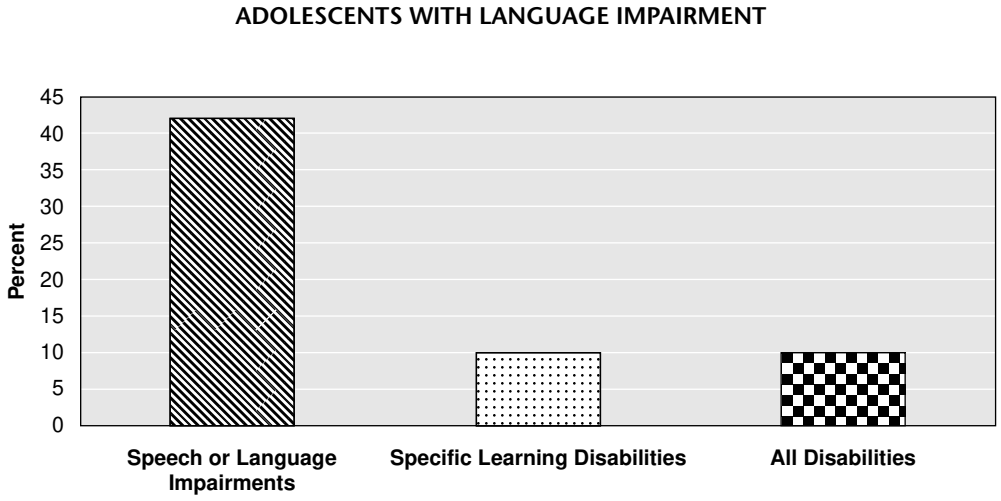

FIGURE 1 | Percent of Students between 14 and 21 Years of Age Moved from Special Education to General Education (Regular Education) according to 2004–2005 Data

Source: U.S. Department of Education (2006).

A relationship between juvenile delinquency and adolescent language impairment is only beginning to be documented in the literature, even though there has been some degree of awareness of a link between communication impairment and adult prison populations for several years (Bountress & Richards, 1979; Castrogiovanni, 2002; Crowe, Byrne, & Henry, 1999; U.S. Department of Education, 1999). A comparison of the oft-cited characteristics of adolescents at risk for juvenile delinquency or those already in detention and the characteristics commonly associated with adolescents with language impairment shows considerable overlap and correspondence. For example, some of the characteristics that have been attributed to juvenile offenders or those at risk for juvenile delinquency include difficulties with interpersonal and social relationships, problems with emotional control, poor academic achievement including reading and writing difficulties, presence of learning disabilities, specific phonological deficits, and discrepancies between verbal IQ and nonverbal IQ scores, with nonverbal scores better than verbal scores (Archwamety & Katsiyannis, 2000; Bigelow, 2000; Foley, 2001; Kirk & Reid, 2001; Marcus, 1996; Meltzer, Roditi, & Fenton, 1986; Schwartzman & Ledingham, 1992; Snowling, Adams, et al., 2000; U.S. Department of Education, 1999; Williams & McGee, 1994). According to Svensson, Lundberg, and Jacobson (2001), over 50 percent of youths in juvenile detention centers have significant reading or written-language problems. Doren, Bullis, and Benz (1996) examined what factors of students with disabilities predict their arrest. Their results indicated the following:

- Students with specific learning disabilities were almost four times more likely to be arrested than other students with disabilities.
- Students with poor social and/or personal adjustment were 2.3 times more likely to be arrested than other students with disabilities.
- Students with disabilities who left school without graduating were almost six times more likely to be arrested than other students with disabilities.

This last factor can be considered together with the information we saw in Tables 2 and 3

about the percentages of adolescents with speech–language impairments who leave high school with no credential. The characteristics attributed to juvenile offenders are logically not independent of each other but rather are interrelated, for example, poor reading and academic achievement, verbal/nonverbal IQ discrepancies, and a diagnostic tag of learning disabled. Many of these characteristics sound remarkably like attributes of children and adolescents with language impairment.

A small body of literature directly links juvenile delinquency and adolescent language impairment. A report of the U.S. Department of Education (1999) indicated that 3 percent of the young people in detention centers had speech or language impairment and that another 45 percent had a specific learning disability. More specifically, Sanger and colleagues (Davis, Sanger, & Morris-Friehe, 1991; Sanger, 1999; Sanger, Creswell, Dworak, & Schultz, 2000; Sanger, Hux, & Belau, 1997; Sanger, Hux, & Ritzman, 1999; Sanger, Moore-Brown, Magnuson, & Svoboda, 2001) have reported on various language abilities of male and female juvenile offenders. Their work has documented that the juvenile delinquent subjects in their studies can be characterized as follows:

- Had poorer norm-referenced language test results compared to nondelinquent adolescents
- Produced less complex language samples compared to nondelinquent adolescents
- Exhibited difficulties with sequencing ideas
- Showed problems with pragmatic skills that included poor topic initiation and topic maintenance, inconsistent use of politeness techniques, and variable application of rules governing conversational interactions either because there were deliberate intentions to violate the rules or because the language resource demands required during the flow of conversations exceeded the adolescents' abilities to maintain appropriate use of rules.

Although there is evidence for an association between adolescent language impairment and juvenile delinquency, the evidence is not particularly well known, heeded, or utilized. The lack of awareness about the association of language and juvenile delinquency is demonstrated by findings, for example, that only a small proportion of incarcerated adolescents are likely to have received special education during their school years prior to their difficulties with the law and that, where services were provided, these tended to be for learning disabilities or behavioral disorders rather than language difficulties (Sanger et al., 2000, 2001). None of the juvenile delinquents in these two studies had received language services prior to incarceration, even though evaluation of their language skills while in juvenile detention indicated that a considerable number of them had language impairment.

Not heeding and/or acting on evidence of the possible relationships between juvenile delinquency and language impairment can be costly. For example, Larson and McKinley (2003) reported on a 1993 speech that the then governor of Minnesota, Arne Carlson, made in which he cited the figure of $500,000 as the cost to that state for each youth who dropped out of high school, obtained welfare for 5 years, and then committed a major crime for which he or she was incarcerated for 20 years. He contrasted this figure with the scenario in which the same youth remained in high school and graduated, proceeded to obtain technical training, and then earned about $500,000 by working for 20 years at an annual average salary of $24,000, a level of productivity that would have contributed to the state in a variety of ways. Governor Carlson